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If you're not already engaged in writing for publishing then I would encourage you to do so. There are a range of mechanisms in place to help and support this endeavour, which is at the heart of academic practice. As you read the articles in this journal think not only about

their content but consider their long journey from original outline to final refined product.

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Information literacy and Web 2.0: developing a modern media curriculum using social bookmarking and social networking tools

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Introduction

The term 'Web 2.0' continues to prompt widespread discussion in terms of definition, impact upon society in general and relevance to library and information professionals in Higher Education. Web 2.0 has been described by Notess (2006:40) as '...a second wave of Web techniques to create more interactive and easy-to-use Websites using new technologies (or using older technologies in a new way)'. There has been debate in recent years concerning the importance of the adoption of Web 2.0 tools by librarians within information literacy teaching programmes. Godwin (2008:8) sees them as providing a vital link to the 'Google generation', which uses search engines effortlessly in a self-directed manner, placing complete faith in what they find on the web. He argues that Web 2.0 tools '...give us a whole set of new ways to reach our users, and tools with which to teach them.' Abram (2006) claims that librarians can guarantee the future of their profession by embracing and exploiting the potential of such technologies. Furthermore, Bradley (2006) argues that an understanding of the term Web 2.0 is unimportant, compared to an acknowledgement that

librarians are in a position to do more than they could in the past and being open to it. Chad (2007) meanwhile, states that unless academic librarians embrace the Google generation they will become increasingly marginalised.

A Joint Information Systems Committee (JISC) survey of first year university student expectations of Information and Communications Technology (2008:4) provided an invaluable insight into current levels of usage of Web 2.0 tools. 93 per cent of those surveyed used social networking tools at least occasionally, 67 per cent used wikis, blogs or online networks in the same vein, whilst 42 per cent maintained their own blog or website. However, the results indicated that usage of these tools in conjunction with academic study is less widespread. Although 73 per cent used social networking tools for study purposes, this was often for online discussion without the participation of the tutor. Indeed, evidence from the survey indicates that 'shy' students who feel uncomfortable in formal classroom situations do not tend to use these tools when prompted by a tutor, regarding such

involvement as an invasion of their privacy: '...you wouldn't want lecturers and tutors to see *Facebook*' (JISC 2008:36). Furthermore, the high percentage of students who used wikis or blogs do not necessarily do so with respect to their coursework.

Project aims

The following aims have arisen from consideration of these issues:

- to investigate the current level of usage of Web 2.0 tools among Academic Liaison / Subject Librarians in information literacy programmes;
- to Integrate Web 2.0 technologies into information literacy teaching to support the modern curriculum in line with CRE8;
- to increase student awareness of collaborative tools in research;
- to use a more practical student-focused approach within teaching;
- to increase motivation of media students to attend the lecture and practical sessions on information literacy.

Research methods

The Academic Liaison Librarian and a member of the media teaching team collaborated to produce a pilot programme for the third level Special Project cohort.

In order to make both the lecture and practical sessions meaningful and relevant to the students, a diagnostic test was submitted to the group in January 2008, several weeks prior to the programme. A short paper was produced to ascertain prior knowledge of Web 2.0 applications, basic competency in searching electronic resources and awareness of the resources themselves. During the same month, a questionnaire was sent out to a number of distribution lists. The results of the diagnostic test and the responses received from the questionnaires provided invaluable assistance in the creation of a programme which could be meaningful and challenging

for the students and innovative for the staff involved with the project.

The Information Literacy component of the Media Special Project unit has consisted of a one-hour lecture to the whole cohort, followed by optional practical sessions of one hour's duration. The lecture followed an interactive format, in which information was conveyed to the students through PowerPoint slides, punctuated with a couple of breakout activities and demonstrations of useful electronic resources. In order to keep the lecture content relevant and meaningful to the attendees, a broad sweep of the audience at the outset established the range of topics which those present were researching. Demonstrations were subsequently restricted to those resources which would have a broad appeal to those present. Everyone who attended the lecture was given a workbook entitled *Finding quality information for your research project*. The purpose of the workbook was to provide information on the range of resources available, interspersed with exercises in search strategy and referencing, which the students undertook during the session. The workbook idea was not new, having been used successfully on several previous occasions with other cohorts at level 2. For the purposes of this session, information on aspects of Web 2.0, including setting up an RSS feed and registering for and using the social bookmarking service *Del.icio.us*, was included. Guidance on registering for *Facebook* was also included, but in view of the student reservations of its use in conjunction with tutors expressed in the JISC survey (2008) above, it was decided not to experiment with its usage in the practical session this year. These views were also supported by a University research student, when we mentioned the possibility of our advertising the forthcoming practical sessions within *Facebook* or similar sites.

The length of the practical sessions was increased to ninety minutes for the purpose of this research project. It was felt that the extra time would allow for adequate exploration of Web 2.0 tools such as *Del.icio.us* and Weblogs, whilst offering

students the chance to explore electronic resources relevant to their individual research topic. In an attempt to increase meaning and relevance, students were asked to indicate their research topic when signing up for the session. This allowed the staff to direct the individuals present to resources of particular relevance to them. In an attempt to maximise attendance of the practical sessions, they were promoted at the end of the lecture and advertised in the workbook. Students were encouraged to sign up at the end of the lecture, or via their departmental notice board.

The practical session introduced a number of innovative approaches. It was the first time that sessions had been jointly presented by a subject librarian and a member of the media departmental teaching team. This gave the session increased credibility and increased awareness among the students that the academic staff work closely with the subject librarian for the benefit of the student body. Secondly, the students were shown how to register for the *Del.icio.us* website, following a demonstration of the benefits of collaboration over social bookmarking resources. It was explained to the attendees that the experience of 'tagging' web resources through *Del.icio.us* could help with the forming of keywords for use with the literature review aspect of their project research. Similarly, through being able to access the bookmarks and view the tags assigned by researchers in similar areas, students may get inspiration for other angles to try, if their current research methodology is proving unsuccessful. Thirdly, the students were shown how to set up a weblog via the *blogger* website at <http://www.blogger.com/start>. They were encouraged to reflect upon the literature searching process via their blog and to make contributions to the blogs of fellow students.

It was suggested that this would be a good forum for exchanging views on the referencing aspect of the project – an area which often causes stress among students and an ideal area for collaboration and support! Finally, an element of peer teaching was introduced in that the students were required to work together in pairs during the practical session. They were organised where possible to work with someone who was researching in a similar area or topic (e.g. radio). After an initial search of a different resource, the students were required to teach their partner how to use the database they had tried. This approach not only maximised their exposure to the available resources, but also provided an active and challenging exercise in line with the CRE8 curriculum.

Following the programme, the attendees were sent a questionnaire, in order to gain feedback on the new approaches undertaken.

Outcomes

1. Survey of current use of Web 2.0 technologies among Subject/Academic Liaison Librarians

In January 2008, approximately two months prior to our slot within the Special Project unit teaching schedule, a questionnaire (see Appendix 2) was sent via email to a number of electronic discussion lists which were identified as the most likely to be used by Academic/Subject Librarians. Table 1 below shows the number of people who subscribed to the list in January 2008. Unfortunately, it was not possible upon enquiry to the list administrators to determine the number of people on the list who are Academic Liaison/Subject Librarians.

Table 1: Email distribution lists contacted for the survey

List name	No. of subscribers (January 2008)
Media lib	122
LIS Infoliteracy	1020
Lis Scitech	402

1.1 Survey results

There were a total of 22 responses to the emailed questionnaire (21 from higher education institutions, one from a further education institution). Half of the respondents had used Web 2.0 applications within some aspect of their information literacy programme and of the remaining 11 respondents, 10 were contemplating introducing its usage in this way. Several of these respondents expressed an interest in receiving the results of the survey.

Whilst acknowledging the small number of respondents, the survey has nevertheless provided some useful data concerning the current use and satisfaction with the use of Web 2.0 among librarians with a role in information literacy.

Figure 1 shows the number of responding Academic Liaison/Subject Librarians who have used a particular aspect of Web 2.0 within an information literacy programme for students, external training or colleagues within their institution.

Figure 1

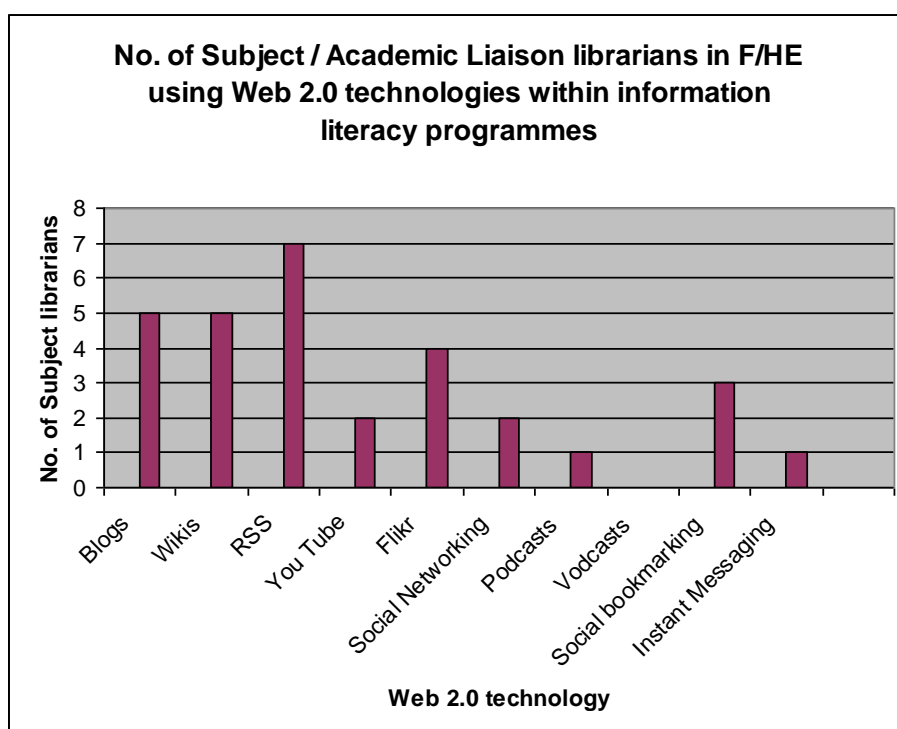


Table 2: Use of elements of Web 2.0 with particular student/staff cohorts in information literacy training sessions within the survey

Cohort type & No. of respondents *

Element of Web 2.0 used	FE	UG	PG/RES	External Training event	Library Staff training
Weblogs	1	2	1	1	2
Wikis	1	3	1	1	1
RSS		3	5		

Element of Web 2.0 used	FE	UG	PG/RES	External Training event	Library Staff training
You Tube		1	1	1	
Flickr		3	2		
Social Networking		1	1	1	
Podcasts		1	1		
Vodcasts	-	-	-	-	-
Social Bookmarking (eg. Del.icio.us)		1	2	1	
Instant Messaging					1

*FE=Further Education

UG=Undergraduate

PG/RES=Postgraduate/Research

Note: Some of the surveyed institutions are using a particular tool, such as weblogs with more than one category of user.

From Figure 1, RSS feeds, weblogs and Wikis are the most commonly used applications and Table 2 shows that two of these (weblogs and wikis) are the only applications currently being used in the FE institution within the survey. As expected, RSS feeds appear to be quite well-used in information literacy programmes for postgraduate and research students, given that they provide a similar service to other established current awareness tools such as *Zetoc*. However, whilst three of the responding librarians use them in undergraduate programmes, this is somewhat disappointing since Bradley (2007:15) informs us that many people now regard them as 'the future'. Given that search engines such as *Google* and many national television and newspaper sites now have their own RSS feed services, they represent an ideal way for first year undergraduate students to keep abreast of news and developments within their subject area.

Perhaps surprisingly, Table 2 reveals a limited usage of *Del.icio.us* and other social bookmarking technologies among subject librarians to date. The possible benefits of

such tools were outlined in the previous section and given the continual rise of Distance Learning courses and expanding participation of Higher Education, surely the portability and collaboration over 'favourite' bookmarks, which *De.lici.ous* offers, would find favour with students.

Interestingly, four subject librarians are using the photograph-sharing website *Flickr*, one of whom described it as a very useful resource for locating images for students which are *Creative Commons* licensed. This is an important consideration for staff and students faced with the requirement to produce attractive presentations without being solely reliant on *Microsoft Clipart* for copyright cleared images. Another respondent was using *Flickr* as a base for a virtual library tour which is shown to new students at all levels. This is an interesting idea which would expose potential future students to the range of facilities and resources on offer to support their course. However, students at Bedfordshire would be more likely to view such a product if it were prominently visible upon the Learning Resources website. This

website is heavily promoted to students at information literacy sessions at all levels.

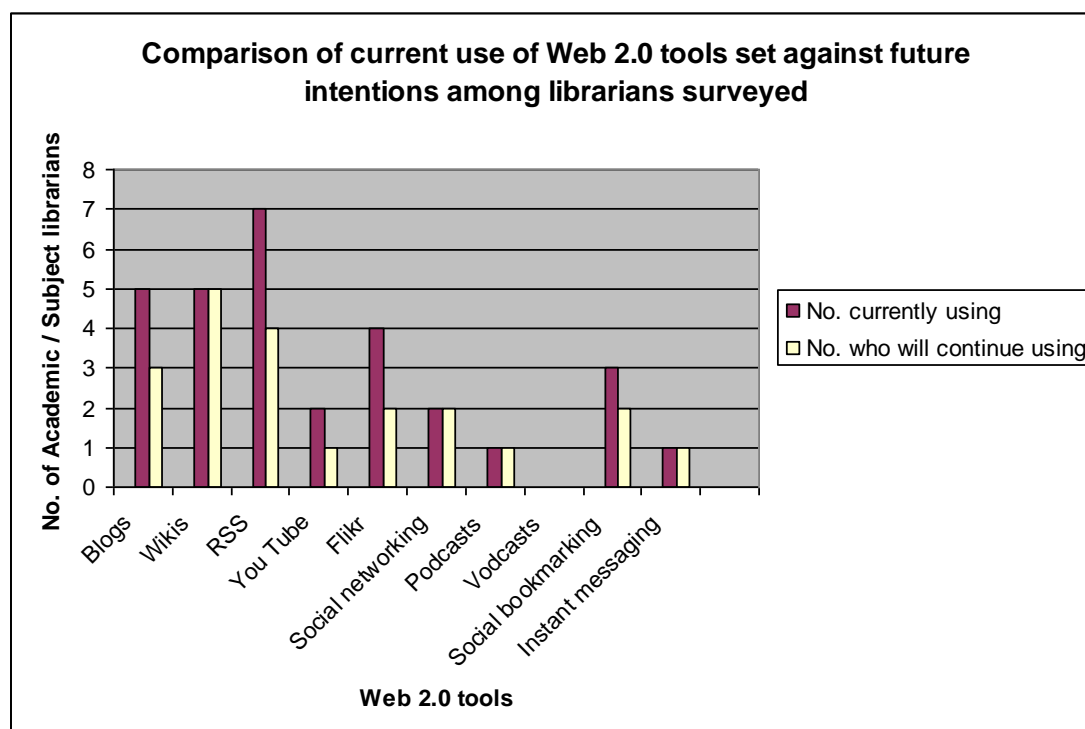
A group of library staff used Instant Messaging through *Moodle* within a group project. Given the presence of group work within the student curriculum at Bedfordshire, it may be worth experimenting with this approach. Furthermore, although we continually strive to increase the visibility of librarians to academic staff and students, as Bradley (2007:137) points out, Instant Messaging services create '...a constant presence...like sitting next to someone while they work'. Such services could be employed to further promote information literacy practical sessions and to remind students about training sessions which they have signed up to. We believe that any avenue or approach which may solve the continual problem of student attendance at practical sessions should be explored. Of course, the adoption of Instant Messaging services does have training implications in an already overcrowded curriculum. Alternatively, a respondent from Birmingham University used *Facebook* to promote forthcoming training sessions and was rewarded with an increased attendance.

Despite the misgivings which students have with tutor/lecturer involvement with Facebook and other social networking sites, we feel that they can have a useful role to play in culturally-diverse student bodies such

as the University of Bedfordshire. Some students, particularly international students, may welcome collaboration of this kind which is not subjected to possible embarrassment of the classroom situation and allows students time to consider their response to an issue away from the pressure of the classroom (Schallert et al., 2003:110). For these reasons, we will investigate the facilitation of use of Facebook among the students, as opposed to direct involvement from the librarian and academic staff. 'When students set up....mechanisms for collaborative learning, they are more engaged than when tutors set up the mechanisms for them' (JISC, 2008:32). However, allowing students to collaborate in this manner, free from an academic presence could create issues with respect to plagiarism. Will a student's 'own' work be harder to discern if s/he is encouraged to work in this way? A questionnaire will be sent out to the students during the next academic year to determine their attitudes with respect to the use of Facebook, facilitated but monitored to an extent by their tutor(s).

Among the 11 subject librarians who responded to the survey, there were variations in terms of how successful they felt the adoption of Web 2.0 technologies had been with their cohort(s). Figure 2 illustrates the correlation between those librarians who have used Web 2.0 tools in their teaching and those who intend to continue doing so following the initial session(s).

Figure 2



Within the survey, respondents were also asked to rate the success of the adoption of these Web 2.0 applications in their teaching programmes on a scale of 1-5, with a grade of 5 indicating 'highly successful'. It should be noted that of the 11 respondents currently using Web 2.0, only nine offered a success rating in this way.

Table 3: No. of institutions expressing satisfaction with the adoption of the technique on a Scale of 1-5 (5 is high)

Element of Web 2.0 used in the IL sessions	1	2	3	4	5
Weblogs	2	1		1	
Wikis			1	3	1
RSS		2		2	
You Tube		1			1
Flickr				3	
Social Networking		2			
Podcasts				1	
Vodcasts					
Social Bookmarking (eg. Del.icio.us)			1	1	
Instant Messaging				1	

From the above data, there appears to be encouraging success in the use of wikis in particular within information literacy programmes. Bradley (2007:5) underlines the value of '...users becoming co-creators of content and adding to the overall experience'. He argues that they can be invaluable in situations whereby information frequently changes. For this reason, the *Research skills for life* workbook will be made available as a wiki, so that future Special Project cohorts can make changes online. For instance, they may wish to publicise their own websites or gateways to fellow students, or they may deem a particular external electronic resource to be more worthy of inclusion than an existing item. Whilst only one respondent (Birmingham University) currently uses podcasts in information literacy (audio tours of the library as podcasts) they found the approach to be successful. Indeed, a podcast will be produced over the summer as an aid to the increasing number of students from partner colleges who need to use University of Bedfordshire resources. Although 7 respondents have used RSS feeds with student groups, only 4 said that they would continue with this process. Some librarians expressed the view that their undergraduate students found the concept hard to understand. From the Bedfordshire perspective, RSS feed aggregators such as Bloglines do not work well with our electronic databases at present, whilst some database providers have added custom-built alerting services of their own to database interfaces. Therefore including RSS feeds in instruction for second and third year undergraduates, who should be focussing exclusively upon reading and citing peer-reviewed publications

in their coursework, is probably not advisable at present. Satisfaction with the use of weblogs is also varied between institutions, although three of the five respondents who have used the technology intend to continue doing so. One respondent administers a library blog, with no evidence of traffic, whilst another user received negative feedback from the students who complained that weblogs, along with emails and online timetables, merely represented another online resource to check. There are plans to incorporate a blogging facility within the web-based subject guides at the University of Bedfordshire. The media webguide is always promoted to students during information literacy sessions and the weblog would represent an ideal platform to obtain student feedback on such issues as reading list items and the quality of resourcing and information literacy teaching sessions.

2. Diagnostic test results

The diagnostic test was completed by 22 students who attended a lecture as part of the Special Project module, during January 2008. The cohort numbers 203 in total, although the majority of these students were making practical pieces of work rather than submitting a dissertation. The test (see Appendix 1) was submitted to the group in order to ascertain the level of knowledge of the group in order to make the content of the information literacy programme more relevant and meaningful. The students were asked questions to determine basic information literacy competencies and prior knowledge of Web 2.0. The results are reproduced in *Table 4*, below.

Table 4: Student responses to questions about Web 2.0 in the diagnostic test:

Question	Response
What do you understand by the term 'Web 2.0'? (give examples)	2 acceptable responses
Have you ever looked at or contributed to a blog?	YES 17, NO 5
What do you understand is meant by an 'RSS feed'?	4 acceptable responses

Interestingly, only two students out of 22 seemed to understand the term 'Web 2.0', but the majority of respondents had looked at or contributed to weblogs and/or RSS feeds. This reflects the national situation described earlier, whereby the precise meaning of the term Web 2.0 remains unclear.

3.Student/staff feedback

Unfortunately, only one questionnaire was returned from the six students who attended the practical sessions. It is thus impossible to make any definitive statements about student motivation and engagement during and after the lecture and practical sessions.

Recommendations

The findings of the project have resulted in the following recommendations:

- The lecture and practical programme will be combined into one session and run on one specific day during the curriculum. The lecture class size will be reduced so that the session runs as a seminar. This may improve attendance and motivation.
- Practical sessions will each focus upon a different research area within Media to tie in with student requirements. Students will be able to sign up for a session specifically promoted within their research area.
- There could be changes to the dissertation seminar series schedule to increase attendance. It would be better if the *Information Literacy and Web 2.0* session ran at

the beginning of the series when the general attendance is much better, and the more specialist practice based sessions, such as photography, digital and video master classes, are ran at the end.

- Consideration needs to be given to increased space within the University curriculum for information literacy sessions, in order to facilitate these improvements, whilst allowing sufficient time for existing content and student exploration of the resources.
- Monitoring of the student's weblog and if necessary interaction from the course team on their research progress. The address of each student weblog will be recorded in order to enable this.
- A survey should be undertaken into the extent and manner of academic use of *Facebook* among students at the University of Bedfordshire to ascertain student attitudes to lecturer/tutor involvement. This may facilitate its usage in a manner likely to engage students with information literacy.
- Feedback should be built into the sessions. Students will not return forms afterwards.
- Possible uses of Instant Messaging in student/staff contact should be explored.
- A survey should be undertaken to explore the extent and use of weblogs and wikis in teaching and learning

across the University of Bedfordshire, in order to increase student engagement with these tools in the referencing and reflective processes.

- A workbook should be made available as a wiki with a link published on the Media Learning Resources webguide.
- A weblog should be incorporated into the Media webguide to facilitate promotion and feedback upon resources and training.

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"Talking Point..."

Open Educational Resources: Shared Solutions for Higher Education

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Open Educational Resources (OERs) are a response to a need for more flexible licensing of educational materials. The OER Movement aims to create materials which can be exchanged and recombined for educational purposes. In the Higher Education sector, some universities (notably MIT) have led the

way in putting their course material and lectures online. One of the effects of this has been a greater diversity in student access and recruitment.¹ However, there are many different approaches across the Higher Education sector, and most UK universities control access to some or all of their course content, licensing or selling the Intellectual Property to partner institutions.

Providing content for free may seem counterintuitive, but business models in other

¹ See Open Learn Report and MIT statistics at <http://ocw.mit.edu/about/site-statistics/>